

In the Claims:

1. (Original) An electronic device (1)
- with a base plate (2),
- with an electronics housing (3) which is connected to
the base plate (2), with at least one bond contact
bearer (5),
characterised in that the bond contact bearer (5) is
supported on the base plate (2) by a supporting body (6) in
such a manner that the supporting body (6) exerts a
pretension force onto the bond contact bearer (5).
2. (Original) An electronic device according to claim 1,
characterised in that a projection of the supporting body
(6) above the base plate (2) is greater than the distance
between the bond contact bearer (5) and the base plate (2).

Claims 3 and 4 (Canceled).

5. (Withdrawn) A procedure for bonding the electronic device
(1) according to claim 1, comprising the steps:
providing the base plate (2),
connecting the electronics housing (3) via the
supporting body (6) with the base plate (2) in such a
manner that the supporting body (6) exerts the pretension
force onto the bond contact bearer (5), and

8 creating a bond connection between the bond contact
9 bearer (5) of the electronics housing (3) and an additional
10 bond contact bearer.

1 6. (Previously presented) An electronic device according to
2 claim 1, characterized in that the supporting body (6)
3 represents a separate component from the base plate (2),
4 which is mechanically connected to the electronics
5 housing (3).

1 7. (Previously presented) An electronic device according to
2 claim 1, characterized in that the supporting body (6) is
3 designed as a projecting ring or as a plurality of
4 projecting individual segments.

1 8. (New) An electronic device comprising:

2 a base plate;

3 an electronics housing connected to said base plate;

4 an electrical bonding contact terminal that protrudes
5 from said housing, and that has a free terminal end
6 projecting away from said housing and a root end adjoining
7 said housing opposite said free terminal end; and

8 a support body that is interposed between said free
9 terminal end of said bonding contact terminal and said base
10 plate, and that supports said bonding contact terminal
11 relative to said base plate, and that exerts a
12 pre-stressing force onto said bonding contact terminal

because a projection height of said support body from said base plate is greater than a distance between said root end of said bonding contact terminal and said base plate.

9. (New) The electronic device according to claim 8, wherein said free terminal end of said bonding contact terminal, relative to said root end of said bonding contact terminal, is deflected away from said base plate by said support body so as to thereby exert said pre-stressing force onto said bonding contact terminal.

10. (New) The electronic device according to claim 8, further comprising an electronic component having a second bonding contact terminal, which is electrically bonded to said bonding contact terminal that protrudes from said housing.

11. (New) The electronic device according to claim 8, wherein said support body is a discrete component separate from said base plate and is mechanically connected to said electronics housing and merely resting on said base plate.

12. (New) The electronic device according to claim 8, wherein said support body is a support frame with a ring shape extending continuously along a perimeter of an opening of said housing.

In the Drawings:

Please add to the application the enclosed New Sheet of Drawing bearing new Fig. 3. Fig. 3 is an enlarged schematic diagram of a side view portion of Fig. 2, and illustrates the subject matter disclosed in original claim 2 and the original written description at page 3 lines 4 to 13. Therefore, the New Sheet bearing Fig. 3 does not introduce any new matter. Entry thereof is respectfully requested.

[RESPONSE CONTINUES ON NEXT PAGE]

REMARKS:

- 1) The Examiner's attention is directed to the enclosed Drawing Transmittal accompanied by one New Sheet of drawing, which bears a new Fig. 3. This new figure illustrates the subject matter of original claim 2 as further described at page 3 lines 4 to 13 of the original specification. Fig. 3 represents an enlarged schematic diagram of a side view portion of original Fig. 2. Thus, new Fig. 3 does not introduce any new matter. Approval and entry thereof is respectfully requested. Please indicate the acceptance of the drawings in the next official communication.
- 2) The specification has been amended by replacing the original specification with the enclosed Substitute Specification.

The changes being made relative to the original specification are shown in the enclosed Marked-Up Version of the Substitute Specification, and the enclosed Clean Version of the Substitute Specification incorporates those changes. The Substitute Specification includes no new matter.

According to the PCT procedures, the original specification of this application was a direct literal translation of the foreign language text of the corresponding PCT International Application. The original translated specification has been amended in an editorial and formal manner, to better comply with typical US application format (e.g. section headings, avoiding reference to specific claim numbers in the written description, etc.).

Also, the specification has been amended to refer to the new added Fig. 3 of the drawings.

Still further, the specification has been amended to more clearly and expressly describe a feature that was inherently understood from the original written description. As originally described (see page 3 lines 4 to 13, and claim 2), the projection height of the support body above the base plate is greater than the distance between the bonding contact terminal and the base plate, so that the support body exerts a pre-stressing force onto the bonding contact terminal when the support body is arranged between the bonding contact terminal and the base plate. As a result of this, it necessarily and inherently means that the bonding contact terminal is deflected by the support body, to accommodate the greater projecting height of the support body between the bonding contact terminal and the base plate. That is what exerts the pre-stressing force on the bonding contact terminal. In the final assembled condition, as a result, the free end of the bonding contact terminal is supported on the support body and is thereby forcibly held at the projection height of the support body away from the base plate. On the other hand, the root end of the bonding contact terminal adjoining the electronics housing is necessarily still at the smaller original spacing distance away from the base plate. The bonding contact terminal has been elastically deflected upwardly at its free end relative to its root end. These features of the invention have now been more clearly and expressly described in the Substitute Specification, and are also shown in new Fig. 3. Because these features were necessarily and inherently included

as features of the originally described subject matter, adding a written description thereof does not introduce any new matter.

Entry of the Substitute Specification is respectfully requested.

3) The claims have been amended as follows.

Original claims 1, 2 and 5 to 7 have been maintained without further amendment.

New claims 8 to 12 have been added. The original claims are based on a direct literal translation of corresponding claims of the PCT International Application, according to the PCT procedures. The new claims 8 to 12 have been drafted "from the ground up" as a fresh approach at covering inventive subject matter with a somewhat different claim style and terminology in comparison to the literally translated original PCT claims. The new claims are supported by the original disclosure as shown in the following table, and do not introduce any new matter. Entry and consideration thereof are respectfully requested.

new claims	8	9	10	11	12
original support	Cl 1, 2	P 3 Ln 4 - 8	Cl 5; P 2 Ln 28 - 30 P 3 Ln 13 - 15	Cl 6; P 3 Ln 1 - 4	Cl 7; Fig. 1 P 3 Ln 1 - 3

4) Applicant hereby affirms the election of the Group I device claims 1, 2, 6 and 7. Claim 5 remains withdrawn but dependent from elected claim 1. After the present amendment, the new claims 8 to 12 are also device claims included in the elected Group I. Thus, now the device claims 1, 2, 6 and 7 to 12 are

elected in the Group I and should be further examined. Also, non-elected claim 5 depends from claim 1 and is directed to a method of using the product or device of claim 1. Thus, in accordance with MPEP 821.04 and 2116.01, if elected device claim 1 is ultimately found allowable, the Examiner is respectfully requested to rejoin, consider and allow the dependent method-of-use claim 5.

- 5) Referring to section 1 on page 2 of the Office Action, dependent method-of-use claim 5 should be rejoined upon the allowance of claim 1, in accordance with MPEP 821.04 and 2116.01. The Examiner stated "*this is not found persuasive because the product claim 1 does not claim a bond connection between the bond contact bearer of the electronics housing and an additional bond contact bearer*". It is acknowledged that dependent claim 5 is narrower than claim 1 in the regard pointed out by the Examiner. That is why claim 5 depends from claim 1. Namely, dependent claim 5 incorporates all the limitations of claim 1, plus the additional limitations recited in claim 5. But independent claim 1 does not incorporate, and is not limited by, its dependent claim. More particularly, claim 5 is directed to a method-of-using the device of claim 1, so that claim 5 is necessarily limited to all of the features of the device recited in claim 1. For example, the method of claim 5 can only be carried out by actually using the device that is specifically defined in claim 1. Therefore, if claim 1 is allowable, then dependent method-of-use claim 5 must be rejoined, considered and also allowed, in accordance with the

above cited MPEP sections. The Examiner's further statement that "as long as one structure or element in a product is different from that of another product, the product is materially different and the claim 1 is not allowable" is not applicable to the present situation, because claim 5 is a method-of-use claim while claim 1 is directed to a product or device. It is further recognized that claim 5 is "materially different" from claim 1, because it is dependent and thus narrower than claim 1, and also is directed to a different category of invention. This does not make claim 1 allowable, but rather if claim 1 is found allowable then claim 5 should also be rejoined and allowed. For these reasons, the Examiner is respectfully requested to reconsider the Restriction Requirement upon the allowance of claim 1.

- 6) Referring to section 2 on pages 2 and 3 of the Office Action, the objection to the drawings has been addressed in the new Fig. 3 on the enclosed New Sheet of drawing. Fig. 3 is an enlarged schematic diagram of a side view portion of Fig. 2, as further described in the specification at page 3 lines 4 to 13. It can now be better seen and understood, that "a projection height (H) of the supporting body above the base plate (is) greater than the distance (D) between the bond contact bearer and the base plate" as recited in claim 2. The (closest) distance (D) between the bond contact bearer and the base plate is defined at the root end (5B) of the bond contact bearer, while the free terminal end (5A) of the bond contact bearer is deflected upwardly and supported on the support body (6). Because the claimed feature is now

illustrated in the drawings, the Examiner is respectfully requested to withdraw the objection to the drawings. Please indicate the acceptance of the drawings in the next official communication.

- 7) Referring to section 4 on pages 3 to 4 of the Office Action, the rejection of claim 2 as indefinite under 35 USC 112(2) is respectfully traversed. The feature of claim 2 has now been illustrated in new Fig. 3 as discussed above. The written description has also been clarified in this regard. It can now be more easily understood that "a projection of the supporting body above the base plate being greater than the distance between the bond contact bearer and the base plate". As pointed out by the Examiner, since the projection height of the supporting body is greater than the nominal distance between the bond contact bearer and the base plate, therefore when the supporting body is arranged between the bond contact bearer and the base plate, the free terminal end of the bond contact bearer is thereby deflected upwardly and held at the height defined by the projection height of the supporting body. Meanwhile, the root end of the bond contact bearer, where it adjoins the electronics housing, is still at the original nominal spacing distance away from the base plate. This deflection of the bond contact bearer represents the pre-stressing force that is exerted by the supporting body on the bond contact bearer in the assembled condition. Thus, the limitations are not mutually contradictory, but rather are consistent with one another as understood in the manner that has

now been more clearly described. For these reasons, please withdraw the indefiniteness rejection of claim 2.

- 8) Referring to section 6 on page 4 of the Office Action, the rejection of claim 1 as anticipated by US Patent 4,042,861 (Yasuda et al.) is respectfully traversed.

Present claim 1 expressly requires that the supporting body must support the bond contact bearer on the base plate in such a manner so that the supporting body exerts a pretension force onto the bond contact bearer. That is achieved, for example, because the projection height of the supporting body above the base plate is greater than the distance between the bond contact bearer and the base plate (see dependent claim 2), so that the bond contact bearer is deflected upwardly by the supporting body arranged under it. That exerts the pretension force onto the bond contact bearer. Such exertion of a pretension force onto the bond contact bearer is contrary to the general understandings in the prior art, that such forces should not be applied to bond contact bearers (also known as bonding contact terminals), in order to avoid bending, breaking or otherwise disrupting the terminals. On the other hand, the present inventors have determined that the present inventive structure is very effective to ensure an exact positioning of the bonding contact terminals for establishing the required further bonding connection to other electronic components (see the specification at page 1 lines 11 to 15 and lines 20 to 28). That benefit is regarded as outweighing the disadvantages that could otherwise arise from

exerting a pretension or pre-stressing force onto the bonding contact terminals.

In order to anticipate a claim, a prior art reference must disclose or inherently include every feature recited in the claim. That is not the case here. The Yasuda et al. reference does not disclose and includes no inherent indication that the alleged supporting body (2a) exerts a pretension force onto the alleged bond contact bearer (3b').

The flexible plastic base sheet (3) carrying the flexible conductive printed strip (3b) rests on the recess (2a), and the flexible conductive printed strip (3b, 3b') extends beyond the recess (2a) into the deeper recess (2b) to be connected to the connectors (1c, 1c') of the IC block (1). However, there is no disclosure, indication, or suggestion that the recess (2a) shall somehow exert a pretension force onto the flexible printed conductive strip (3b, 3b'). That would not even be possible, because the very flexible nature of the flexible printed conductive strip (3b, 3b') would prevent any pretension force from being exerted, as it would simply flex without any opposing elastic reaction force. As is commonly understood by persons of ordinary skill in the art such a flexible printed circuit made of flexible conductive printed strips (3b, 3b') is extremely flexible (col. 5 lines 7 to 10 and 50 to 58). Thus, a person of ordinary skill in the art would understand that it is not inherently necessitated that a supporting recess would exert a pretensioning force onto such a flexible conductive strip, and

is not even possible to do so in the arrangement of Fig. 2 of Yasuda et al.

It is further significant that the Examiner has not pointed out any particular disclosure of the reference that allegedly discloses this key feature of the invention, namely that the supporting body must be arranged in such a manner so that the supporting body exerts a pretension force onto the bond contact bearer. Instead, the Examiner has simply referred to the flexible conductive strip (3b') and the reference at "see e.g., Fig. 2". Those aspects of Yasuda et al. do not expressly or inherently anticipate this feature of the invention.

For the above reasons, the Examiner is respectfully requested to withdraw the rejection of claim 1 as anticipated by Yasuda et al.

- 9) Referring to section 7 on page 5 of the Office Action, the rejection of claims 1, 2, 6 and 7 as anticipated by US Patent 6,058,013 (Christopher et al.) is respectfully traversed.

The significant feature of claim 1 has been discussed above: namely that the supporting body must be arranged in such a manner so that the supporting body exerts a pretension force onto the bond contact bearer or bonding contact terminal in the inventive arrangement.

In this regard, the Examiner has referred to a wall portion (101, 101') of Christopher et al. as corresponding to the supporting body, and the electrical connector portion (207) with an electrical lead extending from connection (209) through the wall (101) as corresponding to the presently claimed bond contact

bearer. However, there is no express disclosure, and no indication, suggestion or inherent feature of the Christopher et al. patent that would support the assertion that the wall (101) exerts a pretension force onto the electrical lead passing through the wall at the through-wall connection (207). That would only be the case if the dimensions of the components are purposely mis-matched so that the electrical lead does not properly align or fit with the lead-through connection (207). But that would be contrary to ordinary understandings in the art, and is nowhere disclosed or suggested by this reference. To the contrary, Christopher et al. expressly disclose that the electrical connector portion (207) is positioned extending through the plastic wall portion (101) for electrically connecting (209) the component (119) to the electrical connector portion (207) (col. 4 lines 38 to 41), which implies a proper stress-free alignment of these parts with each other. Thus, a person of ordinary skill in the art would understand that the components are purposely and properly designed so that the electrical lead properly aligns with the pass-through connection (207) so that no forces are exerted on the lead.

The reference also does not disclose any reasons or purposes for instead arranging the components so as to exert a pre-tension force on the lead, and a person of ordinary skill would have had no expectation of success and could have expected no predictable result by proceeding in such a manner. A person of ordinary skill in the art would only have proceeded in such a manner if

an advantage, purpose or benefit would have been expected, but that is not the case based on this reference's disclosure.

It is further significant that the Examiner has pointed to no particular disclosure of this reference that allegedly supports the assertion that the wall (101) exerts a pretension force onto the bonding contact terminal. The teachings of the present application cannot be used as a guide for a post hoc reconstruction and rationalization of the invention, when the reference does not teach the pertinent features.

The dependent claims are patentably distinguishable over the prior art already due to their dependence from claim 1.

For the above reasons, please withdraw the rejection of claims 1, 2, 6 and 7 as anticipated by Christopher et al.

- 10) New claims 8 to 12 also define features that patentably distinguish the invention over the prior art. Independent claim 8 recites that a support body is interposed between a free terminal end of a bonding contact terminal and a base plate, and exerts a pre-stressing force onto the bonding contact terminal because a projection height of the support body from the base plate is greater than a distance between the root end of the bonding contact terminal and the base plate. Claim 8 is thus supported by features from original claims 1 and 2 and a further clarification. The Yasuda et al. reference is not pertinent because it was applied in a rejection only against claim 1 but not claim 2. The Christopher et al. reference is not pertinent for the reasons discussed above in connection with claim 1. Namely, Christopher et al. do not disclose and do not inherently

include the feature that the plastic wall (101) actually does or inherently must exert a pre-stressing force onto the lead wire passing through the electrical connection (207, 209). The actual disclosure of the reference regarding the appropriate positioning of these elements is to the contrary (see col. 4 lines 38 to 41). The new dependent claims 9 to 12 recite additional features that further distinguish the invention over the prior art. Favorable consideration thereof is respectfully requested.

- 11) Favorable reconsideration and allowance of the application, including all present claims 1, 2 and 5 to 12, are respectfully requested.

Respectfully submitted,

WFF:he/4962
Enclosures:
Transmittal Cover Sheet
Subst. Spec. Marked Up Version
Subst. Spec. Clean Version
Drawing Transmittal
1 New Sheet of Drawing
postcard

By Walter F. Fasse
Walter F. Fasse
Patent Attorney
Reg. No.: 36132
Tel. 207-862-4671
Fax. 207-862-4681
P. O. Box 726
Hampden, ME 04444-0726

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